



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

General Pathology

2223-1-I0102D005-I0102D017M

Aims

The course aims to introduce the student to the knowledge of the causes of human diseases, understanding pathogenetic and pathophysiological mechanisms relevant for their professional field.

Contents

Homeostasis and disease. Etiology and pathogenesis: disease-causing agents. Acquired and innate immunity. The immune response. Cell and tissue damage. Inflammation and tissue repair. Oncology.

Detailed program

- General Pathology. Etiology. Pathogenesis. Concept of homeostasis and disease. Onset and course of disease. Acute and chronic diseases. General etiology. Physiological and pathological predisposing factors.
- Causes of disease. Physical causes, chemical causes, biological causes: bacteria, viruses, protozoa, fungi, metazoans. Virulence. Pathogenicity. Transmission of infections. Spread of infectious agents. Pathogenic action.
- General properties of the immune system. Innate immunity and adaptive immunity. The cells of the immune system. The soluble mediators. Antigens. The immune response
- Acute and Chronic Inflammation. Phases of the inflammatory process. Chemical mediators. The cells of inflammation.
- Pathophysiology of thermoregulation. Generalities. Thermogenesis: basal metabolism, regulation of thermogenesis. Termodispersion. Alterations in body temperature. Not fever hyperthermia. Fever hyperthermia: pathogenesis, course, types of fever.
- Cellular homeostasis disorders. atrophy, hypertrophy, metaplasia, dysplasia, cellular anaplasia. Cell injury

and death. Oncology.

Prerequisites

Positive evaluation in Biomedical Sciences 1.

Teaching form

Lectures through presentations in electronic form of drawings and diagrams explaining concepts and functions of the organism. The lessons of some disciplines will be provided by teledidattica.

Lessons will be in attendance.

Textbook and teaching resource

Learning material (slides of the lessons) is available at the e-learning platform of the course.

Recommended textbooks:

- Robbins e Cotran: The pathological bases of diseases. Elsevier
- Pontieri-Russo-Frati: General Pathology. Piccin
- Abbas A.K.: Foundations of Immunology. Functions and alterations of the Immune System. Piccin

Semester

First year, II semester

Assessment method

Written examination: multiple-choice and open-ended questions, subdivided for different subjects (general pathology, pharmacology, clinical biochemistry and microbiology)

There will not be in itinere examinations.

The questions are aimed at ascertaining the effective acquisition of theoretical knowledge presented during the course.

The evaluation criteria are the followings: the correctness of the answers, the ability to understand the text of the open question, to argue the answer and to synthesize.

Office hours

By appointment (email request)

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING
